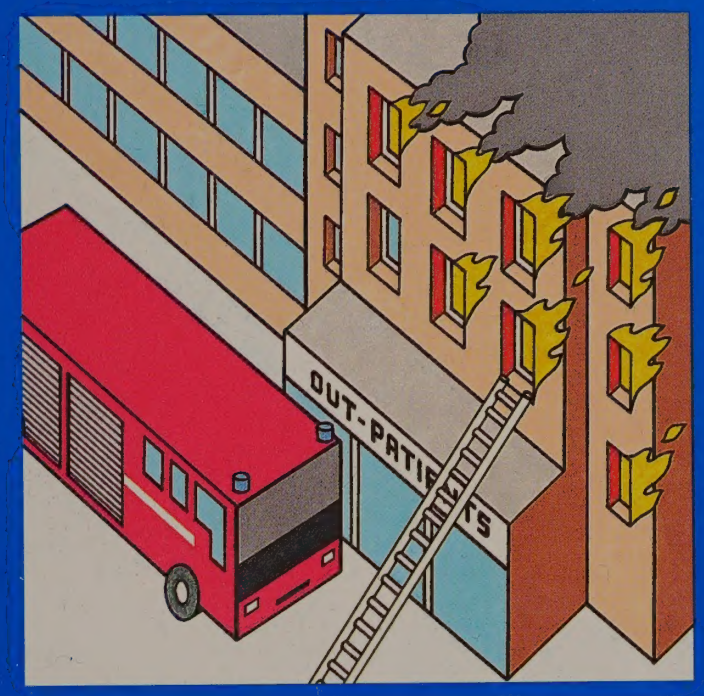
MC0288

Firecode

Health Technical Memorandum 85

Fire precautions in existing hospitals



UK Health Departments

NHS Estates
An Executive Agency of the Department of Health

Firecode

Health Technical Memorandum 85

Fire precautions in existing hospitals

London : HMSO

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About this publication

This document contains guidance on fire safety applicable to NHS hospitals designed and built before the introduction of Firecode: Health Technical Memorandum (HTM) 81 – 'Fire precautions in new hospitals', published in 1987 and the earlier draft HTM 'Fire safety in health buildings' ("the red fire-engine document"), published in 1978.

HTM 85 technically updates the 'Draft guide to fire precautions in hospitals' issued jointly by Home Office and Scottish Home and Health Departments in 1982 and it should be used from the 1 May 1994 for guidance on fire safety in NHS hospitals.

It recognises the interaction between physical fire precautions, the dependency of the patient, the fire hazards within the hospital, the management policies and the availability of sufficient and adequately trained staff on the overall level of fire safety within hospitals. The prescriptive nature of the guidance means that its application is limited. In particular the guidance is not appropriate for certain types of patient (see Sections 5.0 and 6.0) and where patient accommodation is provided on floors over two storey heights above ground (see Section 7.0).

The "sister" publication to HTM 85 is HTM 86 – 'Fire risk assessment in hospitals', which provides a fire engineering approach to risk assessment based on the balancing of life risk, fire hazards and existing fire precautions. Using such an approach it is possible to determine what, if any, additional precautions are necessary on the basis of fire safety equivalency.

HTM 85 and HTM 86 have been prepared by a working group chaired by the Department of Health and in consultation with:

- Home Office;
- Department of the Environment;
- Chief and Assistant Chief Fire Officers Association;
- Fire Research Station;
- National Association of Hospital Fire Officers;
- Representatives from the NHS.

The primary remit of health authorities with regard to fire safety is the safety of patients, all visitors, and health service staff. For all premises under their control, health authorities will need to select and effectively implement a combination of measures to achieve an acceptable level of fire safety, taking into account:

- the guidance in this Health Technical Memorandum;
- the relevant guidance contained in other parts of Firecode;
- all relevant legislation and statutes;
- the advice and approval of local building control and fire authorities;
- the advice of health authority staff (estates staff, hospital fire safety advisers, building control advisers etc).

In this document and the associated Firecode documents, references to general managers means general managers of health authorities and reference to chief executives means chief executives of NHS trusts. References to health authorities include NHS Trusts in appropriate circumstances.

The Home Office has distributed this Health Technical Memorandum to all chief fire officers and has recommended that it be used in conjunction with other parts of Firecode, when advice is sought from fire authorities.

Contents

About this publication

1 Introduction and scope *page 3*
1.1 General application
1.5 Scope of HTM 85
1.7 HTM 86 – 'Fire risk assessment in hospitals'
1.8 Use by competent staff
1.9 Non-NHS hospitals
1.10 Firecode: HTM 81
1.12 The Department of Health Nucleus hospital
1.16 Other Firecode documents

2 Glossary of terms *page 6*

3 Statutory requirements *page 8*
3.1 Building Regulations 1991
3.2 Fire Precautions Act 1971 (as amended by the Fire Safety and Safety Places of Sports Act 1987)
3.6 Offices within patient access areas

4 Patient access areas *page 9*
4.2 Fire safety
4.3 Fire hazards
4.4 Fire precautions

5 Patients *page 11*

6 Fire hazard levels *page 12*
6.3 Potential ignition sources
6.5 Smoking
6.8 Fires started by patients
6.12 Arson
6.14 Work processes
6.17 Fire hazard rooms
6.19 Equipment
6.23 Non-patient access areas
6.25 Lightning
6.27 Combustible materials
6.29 Surface finishes
6.39 Textiles and furniture
6.41 Other materials

7 Fire precautions *page 19*
7.2 Prevention
7.2 Objective
7.6 Management
7.10 Training
7.21 Fire notices and signs
7.26 Communications
7.26 Objective
7.28 Observation
7.30 Alarm and detection systems
7.32 Means of escape
7.32 Objective
7.36 Single direction escape
7.38 Travel distance
7.43 Refuge
7.45 Stairways
7.51 Height above ground level
7.53 Escape lighting
7.56 Staff
7.60 Containment
7.60 Objective
7.62 Elements of structure
7.64 Compartmentation
7.76 Sub-division of roof and ceiling voids
7.78 Openings in barriers
7.79 External envelope protection
7.84 Fire extinguishment
7.84 Objective
7.85 Manual fire-fighting equipment
7.90 Access and facilities for the fire brigade
7.92 Site access
7.94 Access to buildings for fire-fighting personnel

8 Fire safety in areas to which patients do not have access *page 39*
8.1 General principles
8.1 Application
8.2 Fire Precautions Act 1971
8.4 Fire certificates
8.5 Commercial enterprises
8.6 Residential premises
8.7 Licensed premises

Other publications in this series *page 41*

About NHS Estates *page 42*

1.0 Introduction and scope

General application

1.1 This technical memorandum provides guidance on fire safety standards for existing NHS hospitals. It should be used for:

a. the upgrading of fire precautions; and

b. **minor** alterations;

in existing non-Nucleus NHS hospitals, **designed before** the publication of Firecode: HTM 81 – 'Fire precautions in new hospitals', published in 1987 or the draft HTM – 'Fire safety in health buildings' ("the red fire-engine document"), published in 1978.

1.2 Any work affecting fire safety in hospitals designed to the guidance in HTM 81, or the earlier draft HTM, should follow the guidance in HTM 81. Similarly any work affecting fire safety in Nucleus hospitals should follow the guidance in 'Nucleus fire precautions recommendations'.

1.3 The guidance in HTM 85 comes into operation on 1 May 1994.

1.4 The major part of this document, Sections 4.0 to 7.0, considers fire safety in areas of the hospital to which patients have access. Section 8.0 considers fire safety in other areas of the hospital.

Scope of HTM 85

1.5 The central purpose of this document is to provide guidance on the standards of fire safety expected in NHS hospitals, the range and age of which varies from early Victorian hospitals to modern hospitals designed and built in the 1970s and early 1980s. The fire safety issues encountered in these hospitals will vary considerably and are not just dependent on the physical fire precautions which may be provided. This document, in addition, also considers the fire safety implications of:

a. the dependency of the patient;

b. fire hazards within the hospital;

c. management policies;

d. the availability of sufficient and adequately-trained staff.

1.6 The combined fire safety implications of the above, and the range and age of the hospitals to which this guidance applies, limits the application of the prescriptive guidance in this document.

HTM 86 – 'Fire risk assessment in hospitals'

1.7 HTM 86 – 'Fire risk assessment in hospitals' follows a similar format to HTM 85 and provides a method of assessing:

a. the dependency of the patient;

b. existing fire hazards;

c. management policies;

d. availability of sufficient and adequately trained staff;

e. existing fire precautions;

from which any additional fire safety measures required within the hospital may be determined. It should also be used in all areas to which the guidance in HTM 85 is not applicable.

Use by competent staff

1.8 HTM 85 may be used by competent staff employed as:

a. estates and fire safety staff by a NHS trust or health authority;

b. building consultants;

c. building control officers;

d. fire safety consultants;

e. fire officers by the local fire authority.

Staff will be considered competent where they have sufficient technical training and actual experience or technical and other qualities, both to understand fully the dangers involved and to undertake properly the measures referred to in this document.

Non-NHS hospitals

1.9 This HTM may also be used as good practice guidance for the provision of fire precautions in existing non-NHS hospitals and nursing homes, registered under Part II of the Registered Homes Act 1984.

The Registered Homes (Northern Ireland) Order 1992

Firecode: HTM 81

1.10 HTM 81 – 'Fire precautions in new hospitals' sets down general principles and guidance in the design and construction of new hospitals, to ensure effective means of escape for the occupants in the event of fire.

1.11 The guidance in HTM 81 is specific to the applications listed in that document. HTM 81 should **not** be used as an alternative to HTM 85. Similarly the guidance in this document should not be used as an alternative to HTM 81.

The Department of Health Nucleus hospital

1.12 The Nucleus hospital is an assembly of standard cruciform templates each of which may be arranged horizontally and vertically to form a low-rise hospital with landscaped courtyards providing good natural light and ventilation.

1.13 The required standards of fire safety for this unique system of building, engineering and operational policies have been approved by Home Office.

1.14 Nucleus schemes are classified as conforming to the Nucleus concept by submission to the Department of Health in accordance with the approval procedure set down in the 'Nucleus fire precautions recommendations'.

1.15 Where it is proposed to alter or modify an existing Nucleus hospital, the alterations should comply with the guidance in 'Nucleus fire precautions recommendations'.

Other Firecode documents

1.16 This document should be read in conjunction with the guidance contained in the latest revisions of the following Firecode documents:

Policy and principles;

HTM 82 Alarm and detection systems;

HTM 83 Fire safety in healthcare premises: general fire precautions;

HTM 87 Textiles and furniture;

FPN 1 Laundries;

FPN 2 Storage of flammable liquids;

FPN 3 Escape bed lifts;

FPN 4 Hospital main kitchens;

FPN 5 Commercial enterprises on hospital premises;

FPN 6 Arson prevention and control in NHS healthcare premises;

Directory of fire documents (to be revised);

and other relevant documents as they are added to Firecode.

2.0 Glossary of terms

2.1 For the purposes of this document the following terms are defined:

circulation space
The communication routes both within the department/management unit and giving access to other parts of the hospital, and to all necessary fire escape exits.

compartment
A building or part of a building, comprising one or more rooms, spaces or storeys, constructed to prevent the spread of fire to or from another part of the same building, or an adjoining building.

compartment floor
A fire-resisting floor used to separate one fire compartment from another and having a minimum period of resistance of 60 minutes.

compartment wall
A fire-resisting wall used to separate one fire compartment from another and having a minimum period of resistance of 60 minutes (or 30 minutes in single-storey hospitals).

final exit
The termination of an escape route from a building giving direct access to a place of safety outside the building.

fire door
A door or shutter provided for the passage of persons, air or objects which, together with its frame and furniture **as installed** in a building, is intended when closed, to resist the passage of fire and/or gaseous products of combustion and is capable of meeting specified performance criteria to those ends.

fire hazard
A set of conditions in the operation of a product or system with the potential for initiating a fire.

fire hazard room
Room or area as defined in Firecode: HTM 81 – 'Fire precautions in new hospitals'.

fire precautions
Measures which can be taken to reduce the likelihood of ignition occurring and/or to mitigate the consequences should ignition occur. Precautions are considered under five headings, each of which is defined below:

- **prevention**
  precautions to control potential ignition and fuel sources, to ensure that fires do not start; prevention also includes general fire precautions;
- **communications/alarm and detection**
  precautions which inform the occupants and fire brigade when a fire starts;
- **means of escape**
  precautions which enable the occupants of the building to turn their back on the fire, and escape to a place of safety away from the effects of the fire;

- **containment**
  precautions which contain the fire to the smallest possible area, and control the threat to life safety and the extent of property damage;
- **extinguishment**
  precautions which ensure that the fire can be extinguished quickly and with minimum disturbance to the function of the hospital and damage to its premises.

fire resistance
Ability of an element of building construction, component or structure to fulfil, for a stated period of time, the required load-bearing capacity, fire integrity and/or thermal insulation and/or other expected duty in a standard fire-resistance test.

fire stop
A seal provided to close an imperfection of fit or design tolerance between elements or components, to restrict the passage of fire and smoke.

ignition sources
Heat sources or flames which will cause ignition.

place of safety
A place where persons are in no danger from fire.

progressive horizontal evacuation
Evacuation of patients away from a fire into a fire-free compartment or sub-compartment on the same level.

protected shaft
A shaft which enables persons, air or objects to pass from one compartment to another, and which is enclosed with fire-resisting construction.

refuge
A place of temporary safety within a building, this should be an adjoining compartment or sub-compartment capable of holding all those threatened, without a significant change in level and from which there is potential for further escape should that become necessary.

sub-compartment
Areas into which the building can be divided to reduce travel distance and which provide 30 minutes resistance to fire.

sub-compartment wall
A fire-resisting wall used to separate one sub-compartment from another and having a minimum period of resistance of 30 minutes.

travel distance
The horizontal distance to be travelled by a person from any point within the floor area to the nearest adjoining compartment, sub-compartment, escape stairway or external exit, having regard to the layout of walls, partitions, fittings and furniture.

unprotected areas
Unprotected area in relation to a side or external wall of a building means:

a. a window, door or other opening; and

b. any part of the external wall which has a period of fire resistance **less** than 60 minutes, or 30 minutes for a single-storey hospital (integrity and load-bearing capacity only), and which provides less than 15 minutes fire resistance (insulation).

3.0 Statutory requirements

Building Regulations 1991

3.1 The National Health Service and Community Care Act 1990 removed Crown immunity from health authorities and other specified health service bodies from 1 April 1991. This means that for all building work the requirements of the Building Regulations 1991 (SI 1991 2768) should be observed. Approval for building work should be obtained from the building control authority, or an approved inspector. Procedural guidance is available in the document 'Building regulation and fire safety procedural guidance' issued jointly by the Department of the Environment, the Home Office and Welsh Office.

The Building Regulations (Northern Ireland) 1990 (refers to title)
The Building Standards (Scotland) Regulations 1990 (refers to title)
The Health and Personal Social Services (Northern Ireland) Order 1990, effective from 1 April 1992
The Planning and Building Regulations (Amendments) (Northern Ireland) Order 1990
Building (Amendment) Regulations (Northern Ireland) 1991

Fire Precautions Act 1971 (as amended by the Fire Safety and Safety of Places of Sports Act 1987)

3.2 The use of premises as a hospital is not a use designated for the purposes of Section 1 of the Fire Precautions Act 1971. A fire certificate issued by the local fire authority however may be required for those parts of hospitals which are used as shops, offices or factories where:

a. more than 20 persons are at work at any one time;

b. more than 10 persons are at work at any one time, elsewhere than on the ground floor of the premises.

If there are two or more shops, offices or factory premises in the building and the aggregate number of people who work there exceeds 20, or 10 elsewhere than on the ground floor, a fire certificate is again required.

The Fire Services (Northern Ireland) Order 1984 (as amended by the Fire Services (Amendment) (Northern Ireland) Order 1993
Article 22 of the Fire Services (Northern Ireland) Order 1984

3.3 Irrespective of the number of people employed, a fire certificate may be required for factory premises where explosive or highly flammable materials are stored, or used in or under, the premises.

3.4 The following Home Office publications give guidance:

a. 'Guide to fire precautions in existing places of work that require a fire certificate';

b. 'Code of practice for fire precautions in factories, offices, shops and railway premises not required to have a fire certificate'.

3.5 The local fire authority should be consulted in all cases where there is any doubt as to whether or not the premises, or part of the premises, are factories, offices or shops.

Northern Ireland Fire Authority

Offices within patient access areas

3.6 Where the aggregate number of persons at work in designated parts of patient access areas exceeds 20, or 10 elsewhere than on the ground floor, any office accommodation associated with the patient access areas will require a fire certificate. However, the means of escape from these offices should follow the guidance in Section 7.0 of this document and **not** the guidance in the 'Guide to fire precautions in existing places of work that require a fire certificate: factories, offices, shops and railway premises'.

4.0 Patient access areas

4.1 Patient access areas, for the purposes of this document only, are those areas of a hospital to which patients have access either with or without supervision. They include **all** areas containing escape routes used by patients. They **do not** include the commercial enterprises within the hospital which may be frequented by patients (see paragraph 8.5).

Fire safety

4.2 Fire safety in patient access areas is considered, in Sections 5.0, 6.0 and 7.0, by reference to:

a. **the dependency of the patient** – by consideration of their mobility and ability to comprehend and respond to instruction, see Section 5.0;

b. **the fire hazards** – by consideration of the combustible materials and potential ignition sources, see Section 6.0;

c. **the fire precautions** – by consideration of measures to prevent fires from starting and to mitigate the effects should a fire start, see Section 7.0.

Fire hazards

4.3 Examples of fire hazards are:

- **potential ignition sources** – fires started by patients, fires spreading from other parts of the hospital, arson, lightning, smoking, equipment fires and fires involving work processes;
- **combustible materials** – textiles and furniture, surface finishes, room contents etc.

Fire precautions

4.4 Fire precautions are considered in Section 7.0 under the following five headings:

a. **prevention** – precautions to ensure that fires do not start by controlling ignition sources and combustible materials;

b. **communications** – precautions to ensure that if ignition occurs, the occupants and fire brigade are informed;

c. **escape** – precautions to ensure that the occupants of the building and the surrounding areas are able to move to places of safety before they are threatened by heat and smoke;

d. **containment** – precautions to ensure that the fire is contained to the smallest possible area, limiting the amount of property likely to be damaged and the threat to life safety;

e. **extinguishment** – precautions to ensure that the fire can be extinguished quickly and with the minimum consequential damage to the building.

4.5 Section 7.0 of this document prescribes the fire precautions which should normally be applied. However, when the design and construction of a hospital

imposes constraints which are impractical to resolve, certain fire precautions may be provided to a lower standard, these are listed below:

a. observation;

b. alarm and detection systems;

c. single direction escape;

d. travel distance;

e. refuge;

f. stairways;

g. height above ground level;

h. elements of structure;

j. external envelope protection.

In such cases the guidance in this document is inadequate for determining the overall combination of fire precautions and a full fire risk assessment should be undertaken using the guidance in HTM 86.

5.0 Patients

5.1 Most patients require staff assistance to escape. Certain patients because of their clinical dependency and/or treatment will require extra assistance to move in the event of fire.

5.2 Areas providing care for the groups of patients listed below will require **higher standards** of certain fire precautions to those prescribed in this HTM. **For these patient access areas a full fire risk assessment should be undertaken using the guidance in HTM 86.**

5.3 There is often a mix of people with a range of dependencies. Some will be able to escape without assistance, others will require considerable extra help to do so. Any assessment will need to be based on the clinical dependency of the majority.

Standard

5.4 The guidance in this document is appropriate for all areas to which patients have access except where the **majority** are:

a. those who cannot walk either with, or without assistance;

b. those with learning disabilities;

c. those who suffer from mental illness;

d. those whose clinical treatment and/or condition creates a high dependency on clinical staff.

5.5 Examples of high dependency patients are those in: intensive therapy units, special care baby units and operating departments.

6.0 Fire hazard levels

6.1 This section gives guidance on the fire hazards, against which the precautions in this document provide an agreed standard of protection. **In patient access areas of hospitals, where the hazards are higher than those stated here, the guidance in this document is inadequate for determining the minimum acceptable levels of fire precautions. In this case a full fire risk assessment should be undertaken using the guidance in HTM 86.**

6.2 Fire hazards are considered under the following headings:

a. potential ignition sources;

b. combustible materials.

Potential ignition sources

6.3 Hospitals have many potential sources of ignition. Broadly these can be categorised as: natural phenomena (such as lightning), human carelessness, technological failure (for example wiring and appliance faults) and deliberate fire-raising. Whether these constitute a hazard depends on a number of factors, such as the physical fire precautions within the hospital, staff training, maintenance procedures, adequate supervision and adequate security measures. This section provides guidance on identifying potential sources of ignition and the measures which can be taken to ensure that they do not become a potential hazard.

6.4 Potential sources of ignition found within hospitals are considered under the following headings:

a. smoking;

b. fires started by patients;

c. arson;

d. work processes;

e. fire hazard rooms;

f. equipment;

g. non-patient access areas;

h. lightning.

Smoking

6.5 Smoking has shown a marked decline in recent years. However, statistics show that carelessness in the use and disposal of matches and smoking materials is still a major cause of fires. The clear aim should be to discourage and restrict smoking as far as practicable and detailed guidance on promoting non-smoking on NHS premises is contained in HSG(92)4.

Standard

6.6 "Smoking" and "No smoking" areas should be clearly marked by appropriate signs. Smoking should be prohibited in kitchens, stores, ceiling voids, ducts and basements and in parts of buildings where there is combustible storage. Sufficient and suitably placed ashtrays or bins of an approved type should be provided for the safe disposal of smoking materials, where smoking is permitted.

6.7 Day rooms and other places where smoking is permitted should be inspected at regular intervals and about half an hour after they have been vacated for the night to ensure that discarded smoking materials are removed and that they have not ignited other materials.

Fires started by patients

6.8 The incidence of fires started by patients often depends on the patient care group for which the facilities are provided. Statistics show that in areas where care is provided for elderly patients and those suffering from a mental illness there is likely to be a higher incidence of fire. This is due to several factors:

a. age and frailty;

b. inability to appreciate the dangers of smoke;

c. not taking proper care when using smoking materials;

d. some fires started deliberately.

6.9 Areas providing care for the people listed below require additional and/or higher standards of fire precautions than those prescribed in this HTM. **For these areas a full fire risk assessment should undertaken using the guidance in HTM 86.**

6.10 In areas providing care for a range of patient groups, where the ratios are constantly changing, the assessment should be made on the condition of the majority of patients.

Standard

6.11 The guidance in this document is appropriate for areas to which patients have access except where the majority of patients are:

a. elderly people;

b. those with learning difficulties;

c. young people with disabilities;

d. those who suffer from a mental illness.

Arson

6.12 Guidance on the prevention of arson is available in the NHS security manual issued by the National Association of Health Authorities and Trusts and Firecode: FPN 6 – 'Arson prevention and control in NHS healthcare premises'. Aspects which may require specific consideration are:

a. site access;

b. building access;

c. design of staff circulation routes to increase passive surveillance;

d. the reduction of unfrequented areas;

e. use of CCTV and specialist security staff;

f. restricted access to sensitive areas (stores, plantrooms etc) and to disused (or derelict) buildings.

Standard

6.13 The hospital should have a policy on the prevention of arson, which is specific to the individual needs faced by the hospital. This should form part of the overall fire safety policy required by Firecode: 'Policy and principles'.

Work processes – Standard

6.14 All hazardous work processes should be identified. Measures should be taken to ensure that all those working in these areas receive adequate training and are made aware of the potential hazards to themselves and to all others who may use the hospital. Safe working practices once established should be adhered to and periodically re-evaluated.

6.15 Work processes in the following areas can present particular hazards if adequate precautions are not taken:

a. physiotherapy departments;

b. X-ray departments – particularly film storage.

6.16 Guidance on the particular hazards within these areas and effective measures to reduce them is contained in Firecode: HTM 83 – 'Fire safety in healthcare premises: general fire precautions', which also contains guidance on the hazards associated with building and maintenance work within patient access areas.

Fire hazard rooms

6.17 Certain rooms within patient access areas of hospitals by their use constitute a particular fire hazard. These rooms should be enclosed in fire-resisting construction to ensure that they do not present a serious fire hazard. Fire hazard rooms and areas are listed in HTM 81 – 'Fire precautions in new hospitals'.

Standard

6.18 Fire hazard rooms and areas should be enclosed in 30 minutes fire-resisting construction.

Equipment

6.19 Many hospital fires are caused by defective mechanical and electrical plant and damaged electrical cables. These may be prevented by a programme of planned preventative maintenance which ensures that all equipment is regularly checked and maintained in accordance with the manufacturers' instructions.

6.20 It is important to ensure that faults and defective equipment which are identified by staff are brought to the attention of the maintenance section who can then take the appropriate action.

Standard

6.21 There should be an effective programme of planned preventative maintenance in operation throughout the hospital, with an agreed procedure for reporting faults. Once reported, action should be taken to repair the fault or to otherwise ensure that the equipment is made safe.

6.22 In each room/area there should be an adequate number of electrical sockets for the equipment used in that room. Complex equipment should be provided with clear user instructions. Extension leads, two-way adaptors etc should only be used under the direction of a suitably-qualified member of staff. The wiring of plugs by untrained staff and the use of personal items of electrical equipment should not be permitted.

Non-patient access areas

6.23 The separation of serious ignition sources from patient access areas increases the safety of the patients. Should a fire occur, the amount of separation required by this document means that there should be adequate time to extinguish the fire without it affecting patients to an extent that would require their evacuation.

Standard

6.24 The following, if in the same building, should be in separate compartments:

a. boilerhouses;

b. central staff changing;

c. central sterile supplies;

d. flammable stores;

e. hospital sterilizing and disinfecting units;

f. laundries;

g. main electrical gear;

h. main kitchens;

j. main stores;

k. medical records;

m. pharmaceutical (manufacturing);

n. pathology;

p. patient services;

q. refuse collection/disposal areas, incineration;

r. works.

Medical gas stores should always be located in separate buildings. HTM 2022 – 'Medical gas pipeline systems' gives guidance.

Lightning

6.25 The provision of a lightning protection system will reduce the possibility of fire starting due to a lightning strike. BS6651:1992 gives guidance on the design of systems for the protection of structures against lightning. The design of lightning protection systems is specialised and advice should be taken from a suitably-qualified person or installer on the specific protection required for each building. The distribution of lightning strikes in the UK is not uniform, certain areas have a higher incidence of strikes than others. Guidance is provided in BS6651:1992.

Standard

6.26 The hospital should be provided with adequate protection against lightning. All lightning protection systems should be visually inspected once in every twelve month period, by a suitably-qualified person, a record of inspections should be maintained. New lightning protection systems should comply with the requirements of BS6651:1992.

Combustible materials

6.27 Hospitals contain much combustible material in the form of textiles, furniture, surface finishes, paper, combustible waste etc. Whether these constitute a particular hazard will depend on a number of factors – how and where they are used, how they are stored, their age and physical condition etc. This section provides guidance on identifying combustible materials and also on standards relating to the use and storage.

6.28 Combustible materials are considered under the following headings:

a. surface finishes;

b. textiles and furniture;

c. other materials.

Surface finishes

6.29 The finish applied to a wall, floor and ceilings can contribute to the spread of a fire. Some finishes will transfer fire from one area to another very quickly by "surface spread of flame". This not only makes the fire difficult to control, but provides additional fuel, which will increase the severity of the fire.

6.30 Small areas with finishes lower than specified are permitted provided they do not amount to more than 5% of the total wall areas (for example notice-boards). Where walls are covered by temporary surfaces such as posters, fabrics, prints, decorations etc the significance of these needs to be considered.

6.31 Where walls have been subject to repeated painting, over a number of years, with gloss paints, the accumulated thickness of paint film may present a problem and provide for rapid transfer of fire over its surface. Where this situation exists, specialist technical advice should be obtained. The use of anti-graffiti and intumescent paints requires careful consideration, especially when they are applied over existing painted surfaces. Full technical guidance should always be obtained from the manufacturer.

6.32 Surface finishes which can be effectively tested for "surface spread of flame" are rated for performance by reference to the method specified in

BS476:Part 7:1971 or 1987 under which materials or products are classified 1, 2, 3 or 4 with Class 1 being the highest.

6.33 Class 0 is the highest product performance classification, however it is not a classification identified in any British Standard test. Class 0 is defined in the Department of the Environment's Approved Document to Part B of the Building Regulations.

6.34 The following generic materials and products all achieve a Class 0 rating:

a. products classified as non-combustible when tested to BS476:Part 4: 1970 or Part 11:1982;

b. brickwork, blockwork, concrete and ceramic tiles;

c. plasterboard (painted or not, or with a PVC facing not more than 0.5 mm thick) with or without an air gap or fibrous or cellular insulating material behind;

d. woodwool cement slabs;

e. mineral fibre tiles or sheets with cement or resin binding.

6.35 The following may achieve the ratings listed below. However as the properties of different products with the same generic description vary, the ratings of these materials/products should be substantiated by test evidence:

a. Class 0 – aluminium-faced fibre insulating board, flame-retardant decorative laminates on calcium silicate board, thick polycarbonate sheet, phenolic sheet and UPVC;

b. Class 1 – phenolic or melamine laminates on a calcium silicate substrate and flame-retardant decorative laminates on a combustible core.

Standard

6.36 The potential fire hazard due to the surface finishes will be considered acceptable if all wall and ceiling finishes meet the following classifications:

Location	Walls	Ceilings
Circulation spaces	Class 0	Class 0
Other rooms	Class 0	Class 1
Small rooms (up to $4m^2$)	Class 1	Class 1

Floors

6.37 The finish applied to a floor may also contribute to the spread of fire. HTM 61 – 'Flooring'; gives guidance on the selection of floor finishes for hospitals.

6.38 Although hard flooring is not considered a problem, the finish applied to certain flooring materials may, over a period of time, accumulate and constitute a fire hazard. The accumulation, over a number of years, of wax polish applied to a timber floor will pose a significant fire hazard.

Textiles and furniture

6.39 Textiles and furniture make a significant contribution to the fuel load within a building. Firecode: HTM 87 – 'Textiles and furniture', gives guidance on

their selection for hospitals. The aim should be to achieve 100 per cent compliance with the requirements of HTM 87. In existing hospitals, it is recognised that it will take time to achieve.

Standard

6.40 The potential fire hazard due to textiles and furniture will be considered acceptable if more than 75 per cent of all items of textiles and furniture achieve the standard required in HTM 87 and there is an agreed policy of planned replacement and maintenance to comply with HTM 87.

Other materials

6.41 The following are examples of other combustible materials which may be found within hospitals:

- flammable liquids;
- aerosol sprays;
- medical gases;
- liquified petroleum gases;
- disposable goods and packaging made from paper, plastic and expanded foam;
- combustible waste.

6.42 The above list, although comprehensive, is not definitive and other combustible materials may be present in patient access areas of hospitals.

6.43 If stored and disposed of correctly, combustible materials should not constitute a fire hazard. Appropriate guidance is provided in Firecode: HTM 83 – 'Fire safety in healthcare premises: general fire precautions', and FPN 2 – 'Storage of flammable liquids'.

Standard

6.44 The potential fire hazard will be considered acceptable where all combustible materials are identified and stored in accordance with the guidance in Firecode: HTM 83 – 'General fire precautions' and FPN 2 – 'Storage of flammable liquids'.

7.0 Fire precautions

7.1 This section provides guidance on the minimum acceptable level of fire precautions applicable to patient access areas of hospitals.

Prevention

Objective

7.2 The design, management and operational policies of the hospital should ensure that all practicable measures are taken to prevent fires.

7.3 The potential for fire in a hospital is ever present. Recent Home Office figures indicate that there are about 2400 hospital fires a year requiring the attendance of the fire brigade. An outbreak of fire in a hospital, however minor, has the potential to cause a major disaster.

7.4 Fire prevention measures should be enshrined in the effective management policies and working practices for the hospital.

7.5 Firecode: 'Policy and principles' and HTM 83 – 'Fire safety in healthcare premises – General fire precautions' contain guidance on fire safety measures. Much of this section refers to the effective implementation of the guidance contained in those two documents.

Management

7.6 The responsibility of management to maintain an effective fire safety policy is identified in Firecode: 'Policy and principles'.

Standard

7.7 Chief executives of trusts, and general managers of health authorities should:

a. ensure that their management policies regarding fire safety comply with the relevant guidance in Firecode: 'Policy and principles';

b. ensure that sufficient and adequately-trained staff are available at all times (day and night), to provide for the safe evacuation of patients, in accordance with the emergency evacuation plan (see Firecode: 'Policy and principles' Section 3.0);

c. maintain an up-to-date set of drawings which indicate: alarm and detection systems, means of escape, emergency lighting, containment, first aid fire-fighting equipment and fire brigade access;

d. keep records for a minimum period of three years of all maintenance work, instruction and training, and fire drills.

7.8 Records should include details of the testing and maintenance of the following:

a. the means for detecting and for giving warning in the case of fire;

b. the means for fighting fire;

c. any smoke management, smoke control or smoke venting systems;

d. escape lighting;

together with details of:

e. instruction and training;

f. fire drills.

7.9 Records should further include:

a. the date on which the testing and maintenance was carried out and by whom;

b. the date on which any defects were reported and the action taken to remedy such defects;

c. the date on which the defect was remedied and by whom.

Training

7.10 All staff (including managers and senior staff in **all** professions) should receive basic instruction in fire safety and other fire training appropriate to their specific needs. Senior staff should lead by example.

7.11 Where certain services (catering, cleaning etc) are provided by non-NHS organisations, the availability of staff to assist with patient evacuation may be limited. Where for fire safety purposes non-NHS staff are required to assist in patient evacuation, it is essential that this is discussed and agreed, and then stated in the contract between the trust/health authority and the provider of the service. Firecode: FPN 5 – 'Commercial enterprises on hospital premises' gives additional guidance.

7.12 Staff training should be specific to the normal place of work and should cover:

a. fire prevention;

b. the correct action to be taken when a fire is discovered;

c. evacuation and escape procedures;

d. an appreciation of the importance of fire doors and their correct use and avoidance of abuse;

e. use of first aid fire-fighting equipment provided including, where appropriate, practical demonstrations.

7.13 Records kept of training and instruction should include:

a. the date of the instruction or exercise;

b. the duration;

c. the name of the person giving the instruction;

d. the names of the people receiving the instruction;

e. the nature of the instruction, training or drill.

7.14 When the fire drill discloses defects in the emergency plan, the means of escape or the means for giving warning, the record should include every defect and details of the action taken to remedy them.

Standard

7.15 All staff, including part-time and agency staff, should be trained in fire safety in accordance with guidance contained in Firecode: HTM 83 and 'Policy and principles'. Non-NHS staff employed within the hospital by others should also receive appropriate training in fire safety.

7.16 Instruction in fire safety should be given by a suitably-competent person so that each member of staff receives instruction at least once in every period of twelve months.

7.17 Additional training should be provided for nominated officers (fire) and their deputies to enable them to effectively carry out their duties.

7.18 Specific training should be provided for all staff who regularly deal with flammable materials, or heat-producing equipment.

7.19 Staff involved in the selection, installation, operation and maintenance of fire alarm and detection systems should be conversant with the requirements of Firecode: HTM 82 'Alarm and detection systems' and receive adequate training in accordance with the appropriate section of that document.

7.20 Persons visiting the premises on a regular basis should receive appropriate training in fire safety.

Fire notices and signs

7.21 The purpose of fire notices is to give concise instructions of the actions to be taken on discovering a fire and on hearing the alarm. Details of the relevant emergency evacuation plan should be included.

7.22 Fire signs should be recognisable, readable and informative. They convey essential information to regular and infrequent users of the premises and the fire brigade. The visibility, illumination and height of display should be carefully considered.

7.23 Guidance on the contents of fire signs and notices is provided in Firecode: HTM 83 – 'Fire safety in healthcare premises – General fire precautions', and HTM 65 – 'Signs guide 2; Fire safety signs'.

Standard

Fire notices

7.24 Fire notices should be permanently displayed in conspicuous positions. Additional notices giving further instruction should be displayed on staff notice-boards and in staff common rooms and residential accommodation.

Fire signs

7.25 Fire signs should be provided where appropriate in conspicuous positions. A planned programme for the replacement of signs not complying with the latest guidance should exist and form part of the fire safety programme (refer to Firecode: 'Policy and principles' Section 3.0).

Communications

Objective

7.26 The design management and operational policies of the hospital should ensure that fires are detected at the earliest possible opportunity and that suitable warning is then given to staff, occupants and emergency services.

7.27 The provision of adequate means for detecting a fire and raising the alarm is of vital importance. Early detection permits time for orderly evacuation and allows the fire to be tackled at an earlier stage, thus minimising the damage caused. Detection is dependent on staff observation and the automatic alarm and detection systems. Firecode: HTM 82 – 'Alarm and detection systems' gives guidance on the design of new systems and the renewal and the upgrading of existing alarm and detection systems in hospitals.

Observation

7.28 The early detection of fire by people is probably the best type of detection and the design and layout of an area can make a positive contribution to fire safety. Within a sleeping area the most important aspect is the number of beds visible from the staff base, which is the base from which all staff work and where information is stored and exchanged. Although it is unlikely that the staff base will be permanently staffed, a location which provides good observation will improve the likelihood of a fire being detected at an early stage. In areas which do not contain sleeping areas, observation is always assumed to be acceptable.

Standard

7.29 A minimum of 30 per cent of beds should be visible from the staff base.

Alarm and detection systems

7.30 The provision of effective fire alarm systems in hospitals is a vital component of the overall fire safety strategy to protect patients, staff and property from fire. Firecode: HTM 82 – 'Alarm and detection systems', provides general principles and technical guidance on the design, specification, installation, commissioning, testing, operation and maintenance of fire alarm systems in hospitals. It should be read in conjunction with BS5839: Part 1:1988 – 'Fire detection and alarm systems for buildings: Code of practice for system design, installation and servicing'.

Standard

7.31 The alarm and detection systems should comply with the guidance in Firecode: HTM 82 – 'Alarm and detection systems'.

Means of escape

Objective

7.32 The design, management and operational policies of the hospital should ensure that all occupants can move away from a fire to a place of safety as quickly as possible.

7.33 In most patient access areas of hospitals the immediate and total evacuation of a storey or building is not desirable or possible. Non- or partially-ambulant patients cannot negotiate escape routes unaided, particularly stairways, and will require staff assistance to escape to a place of safety. The scale of such an exercise, and the time taken, makes this type of evacuation difficult. For this reason progressive horizontal evacuation of patients is considered essential in hospitals.

7.34 The principle of progressive horizontal evacuation is that, in the event of a fire in one area which requires the evacuation of patients, the patients are evacuated in the first instance to an adjoining area on the same level, which is designed to protect the occupants from the immediate dangers of fire and smoke (refuge). The patients may remain there until the fire is dealt with or await further evacuation to another adjoining area or down the nearest stairway. This procedure will give sufficient time for non-ambulant and partially-ambulant patients to be evacuated down stairways to a place of safety, should it become necessary to evacuate an entire storey.

7.35 To facilitate this the storey should be divided into compartments and sub-compartments.

Single direction escape – Standard

7.36 The maximum horizontal travel distance in a single direction of escape before there is a choice of escape routes should not be more than 15 metres.

7.37 Single direction of escape may include escape from an inner room (a room only accessible through an access room), provided that the total travel distance does not exceed 15 metres and that the access room is not a fire hazard room.

Travel distance – Standard

7.38 The maximum horizontal travel distance from any point to an adjoining compartment, or to a sub-compartment, or to an escape stairway, or to the outside, should not be more than 30 metres.

7.39 The combined travel distance includes the escape in a single direction.

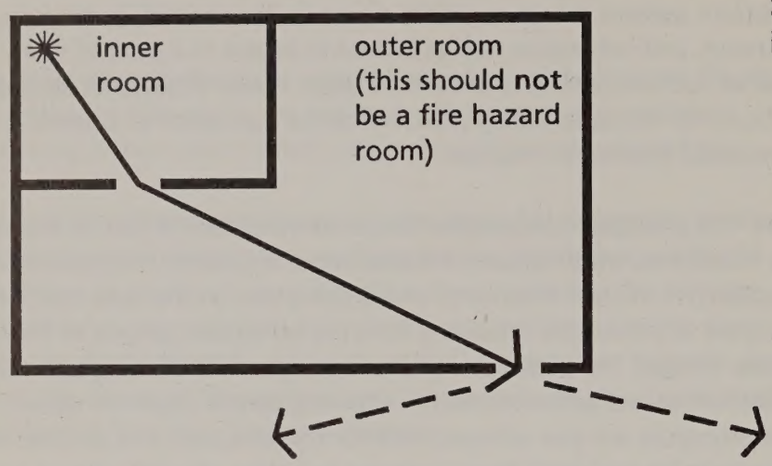
Circulation spaces

7.40 The design of circulation spaces should ensure that it is possible to evacuate all patients by the most appropriate method. In order to assess the suitability of circulation spaces there should be an emergency evacuation plan stating the preferred methods of evacuation. (Refer to Firecode: 'Policy and principles' Section 3.0.)

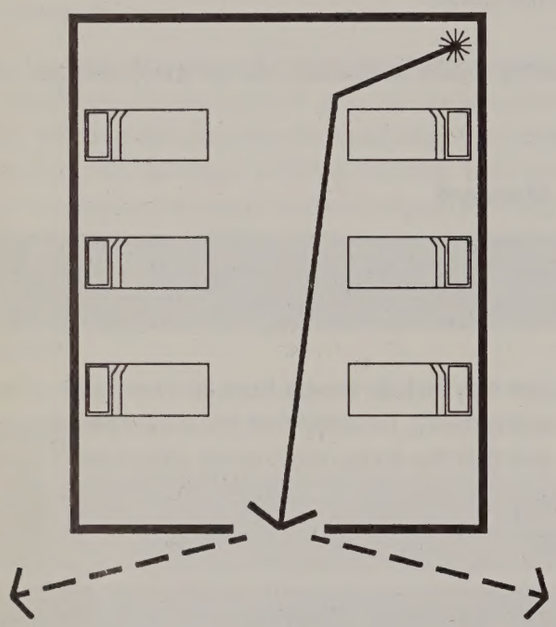
7.41 Circulation spaces need not necessarily be corridors. They may be also be defined routes in open areas. Health Building Note 40 Volume 2 gives detailed guidance on circulation spaces.

Diagram 1 Single direction escape

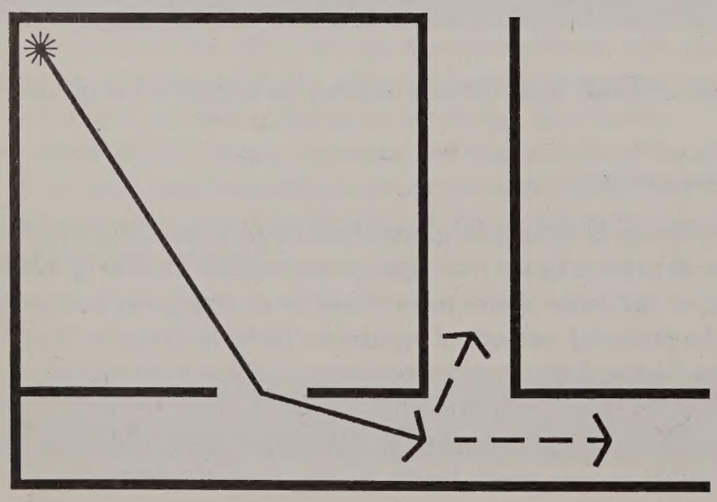
The maximum travel distance in a single direction of escape, before there is a choice of escape routes should not be more than 15 metres.



Single direction escape in this instance includes:
travel within the inner room;
and
travel within the outer room.



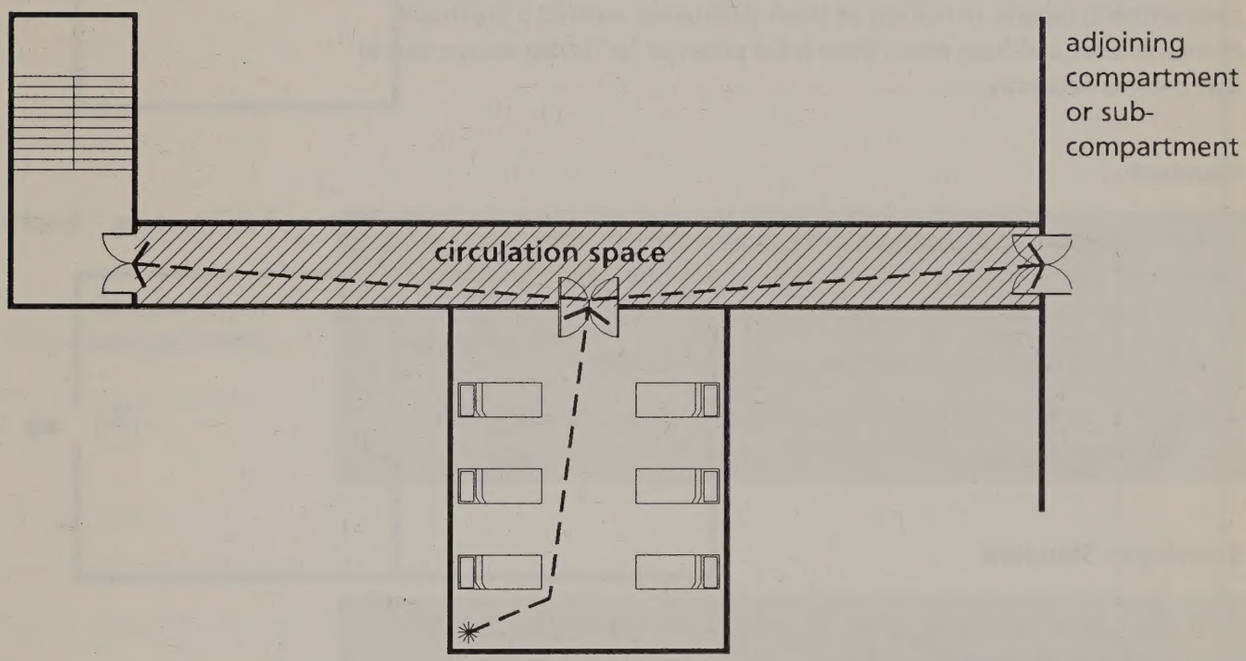
Single direction escape in this instance includes only travel within the room.



Single direction escape in this instance includes:
travel within the room;
and
travel within the circulation space until there is a choice of escape routes.

Diagram 2 Travel distance

The maximum horizontal travel distance from any point to an adjoining compartment, or to a sub-compartment, or to an escape stairway, or to the outside should not be more than 30 metres.



Note:
Travel distance includes single direction escape

Escape across a flat roof

7.42 A flat roof may form part of an escape route provided:

a. the use of the route would not be prejudiced by smoke and fire issuing from an opening in the building envelope;

b. the roof construction will provide a period of fire resistance of at least 60 minutes;

c. the route is defined, has a non-slip finish and is provided with adequate handrails;

d. escape lighting is provided along the route.

Refuge

7.43 Evacuation should initially be planned as a series of progressive horizontal moves to behind fire-resisting barriers. It should therefore be possible to move from one compartment (or sub-compartment), to another compartment (or sub-compartment) capable of holding all those threatened, without a significant change in level, and from which there is the potential for further escape should that become necessary.

Standard

7.44 Each storey of the hospital containing patient access areas should be sub-divided into at least two separate compartments or sub-compartments, each of which should have a minimum of two exits as follows:

a. one to an adjoining compartment or sub-compartment;

b. one to another adjoining compartment or sub-compartment, or to an escape stairway, or to the outside.

Stairways – Standard

7.45 Every storey containing patient access areas should have an adequate number of suitable internal stairways.

7.46 The positioning and design of stairways should ensure that it is possible to evacuate all patients by the most appropriate method. In order to assess the suitability of stairways there should be an emergency evacuation plan stating the preferred methods of evacuation. (Refer to Firecode: 'Policy and principles' Section 3.0.)

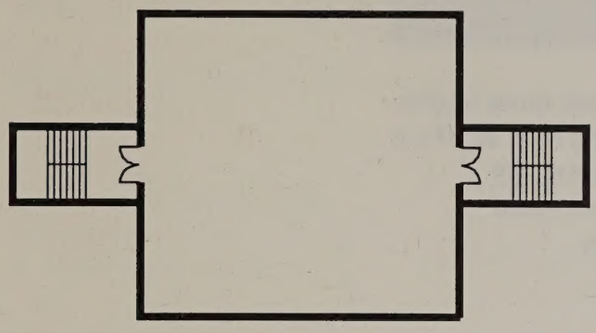
7.47 A stairway will be considered suitable if it has direct access, or protected access, to the outside at ground level. Such access should be suitable for the evacuation of patients and lead to a place of safety away from the building.

7.48 The table below is a guide to assess the number of escape stairways required in a hospital.

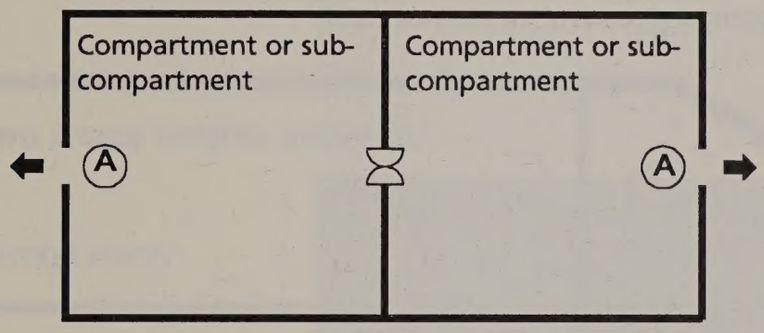
Number of patient beds on any one storey	Number of stairways
1-100	2
101-200	3
201-300	4
301-400	5

Diagram 3 Refuge

No potential for refuge



Standard - potential for refuge



one exit to an adjoining compartment or sub-compartment;

one exit (A) to another adjoining compartment or sub-compartment, or to an escape stairway, or to the outside.

7.49 Above 400 beds – provide an additional stairway for every additional 100 beds.

7.50 A stairway may serve more than one area, but the aggregate width of the stairways provided shall be sufficient for the number of persons likely to be evacuated, taking into account the evacuation policy of the hospital.

Height above ground level – Standard

7.51 The guidance in this document is only appropriate for patient access areas which are located on floors no more than two storey heights above ground level.

7.52 If the patient access area is located on floors more than two storey heights above ground level there must be a full fire risk assessment using HTM 86. This is because of the increased hazard posed by potential ignition sources and combustible materials on the lower floors, and because of the increased problems of evacuating upper floors should it become necessary.

Escape lighting

7.53 Escape lighting is required to illuminate the circulation spaces in the event of a fire and to guard against a failure of electrical supply. HTM 2011 – 'Emergency electrical services' and HTM 2007 – 'Electrical services: supply and distribution', give guidance on escape lighting and details of the electrical supply required.

Standard

7.54 Escape lighting should be provided at the locations specified in HTM 2011 – 'Emergency electrical services', or as in paragraph 7.55.

7.55 Where the escape lighting provided does not comply with the guidance in HTM 2011, there should be a planned programme for upgrading. This should form part of the fire safety programme (refer to Firecode: 'Policy and principles' paragraph 3.7).

Staff

7.56 It is the responsibility of the hospital management to devise suitable arrangements to ensure that adequate numbers of staff are present and available at all times to provide for the safe evacuation of patients, in accordance with the emergency evacuation plan.

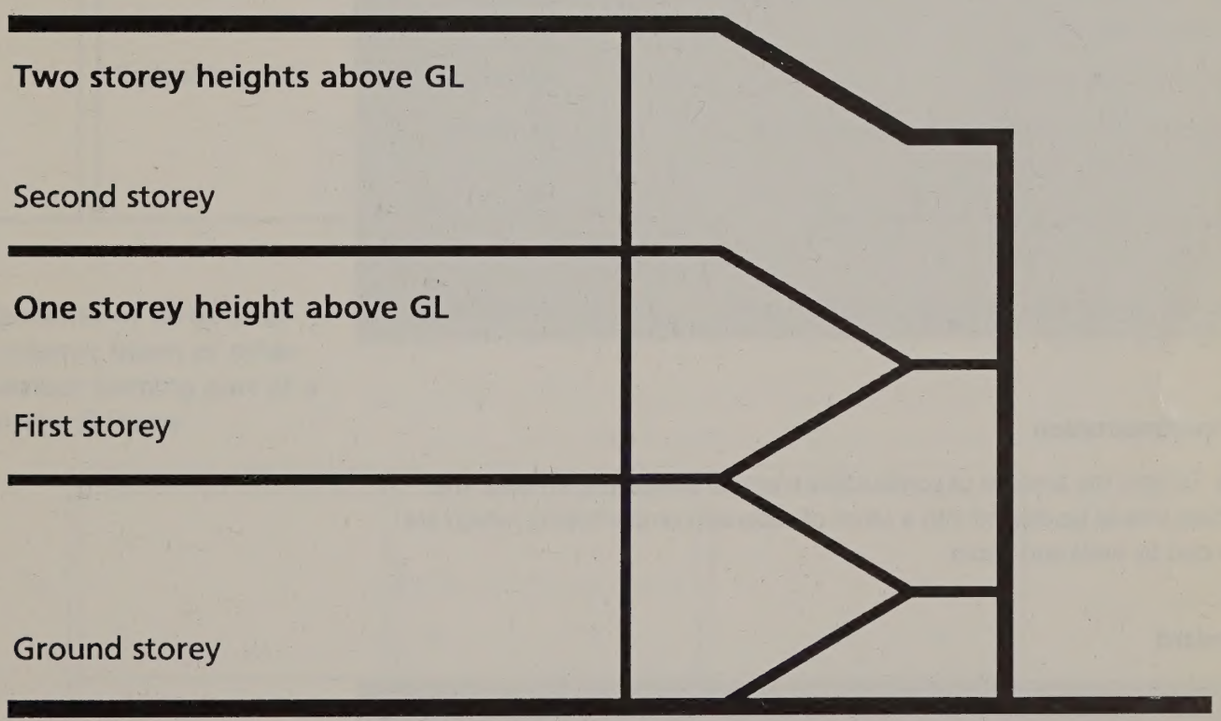
Standard

7.57 When the department/management unit is in use, there should a minimum of **two** staff present at all times. These staff should have received training in the methods of patient evacuation appropriate to the dependency of the patients and be familiar with the evacuation procedures at their place of work.

7.58 Where the number of patients in the department/management unit is above 30, the minimum number of staff present should be increased to three.

Diagram 4 Height above ground

Patient access areas should not be located on floors more than two storey heights above ground level.



7.59 Generally to have two staff available at all times it will be necessary to have three on duty.

Containment

Objective

7.60 The design, management and operational policies of the hospital should ensure that when a fire starts it is contained within the smallest area possible, to limit the spread of a fire and to provide time for escape and extinguishment.

7.61 The ability of a building to withstand and contain the effects of fire and smoke will largely determine the amount of time available for the execution of effective progressive horizontal evacuation.

Elements of structure

7.62 For the purposes of this document elements of structure are:

a. a column, beam, or other member forming part of a structural frame;

b. a load-bearing wall;

c. a floor.

Standard

7.63 The minimum period of fire resistance provided by the elements of structure should be:

single-storey hospitals	30 minutes
hospitals with floors between one and four storey heights above ground	60 minutes
hospitals with floors above four storey heights above ground	90 minutes
hospital basements two or more storeys deep	90 minutes

Compartmentation

7.64 To limit the amount of combustible material available in an area, the building should be divided into a series of separate compartments, which are bounded by walls and floors.

Standard

7.65 The maximum size of a compartment should be no more than 2000 m^2.

7.66 In single-storey hospitals the maximum size of the compartment should be no more than 3000 m^2.

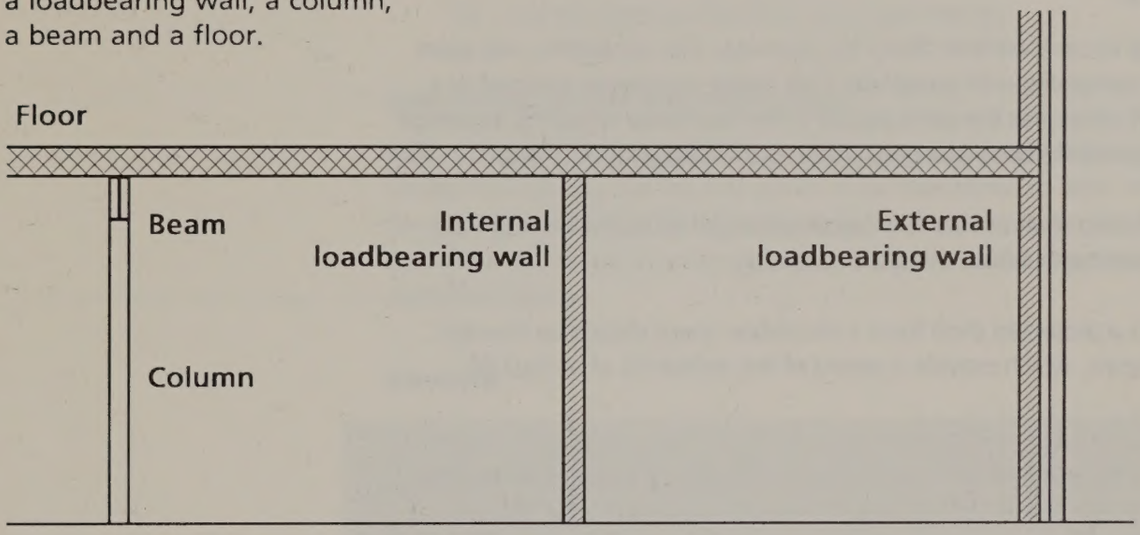
7.67 All openings in compartment structure should be protected to provide the same period of fire resistance as the compartment structure.

Diagram 5 Elements of structure

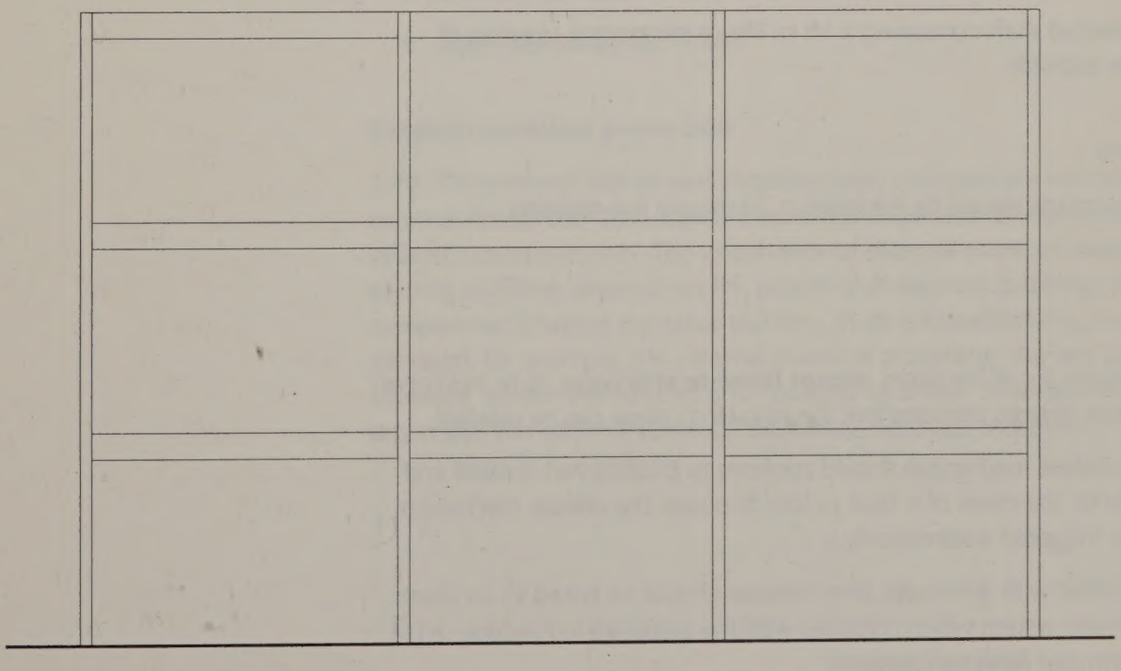
Minimum period of resistance

Single storey hospitals	30 minutes
Hospitals with floors between one and four storey heights above ground	60 minutes
Hospitals with floors above four storey heights above ground	90 minutes
Hospital basements two or more storeys deep	90 minutes

Elements of structure:
a loadbearing wall, a column, a beam and a floor.



Elements of structure:
a column, beam or other member forming part of a structural frame



Openings in compartment structure

7.68 To maintain the integrity of compartmentation openings should be adequately fire-stopped and limited to:

a. doors which have a period of fire resistance not less than that of the compartment structure;

b. openings for cast iron or steel pipes of not more than 160 mm diameter, or for pipes of other materials – not more than 40 mm diameter, or for pipes provided with a proprietary seal which has been shown by test to maintain the fire resistance of the compartment structure – any diameter;

c. ventilation ducts which comply with the requirements of BS5588:Part 9;

d. refuse and laundry chutes of non-combustible construction which are accessed through fire-resisting doors;

e. protected shafts.

Protected shafts

7.69 Openings in compartment floors for stairways, lifts, escalators, and pipes and ducts not complying with paragraph 7.68 above, should be enclosed in a protected shaft which has the same period of fire resistance (integrity, insulation and, where applicable, loadbearing capacity) as the compartment floor.

7.70 The protected shaft should form a complete barrier to fire between the different compartments which the shaft connects.

7.71 Access to a protected shaft from a circulation space should be through doors and doorsets, which provide a period of fire resistance of at least 60 minutes.

7.72 Access to a protected shaft from a room should be through a lobby. The combined fire resistance of the two sets of doors or doorsets to the lobby, should be at least 60 minutes.

7.73 Means for ventilating protected shafts in the event of fire should be provided as follows:

a. for a protected shaft containing a stairway – at the top of the stairway, an openable window, or similar, providing an area of 1 m^2;

b. for a protected shaft containing a lift or lifts, a permanent opening of 0.1 m^2 for each lift.

Lift motor rooms

7.74 Lift motor rooms should be enclosed in 30 minute fire-resisting construction.

Fire doors

7.75 It is acceptable for all fire doors, **except those to stairways**, to be held open on automatic door releases provided that the following criteria can be satisfied:

a. the door release mechanism should conform to BS5839:Part 3:1988 and be failsafe (in the event of a fault or loss of power the release mechanism should be triggered automatically.);

b. all doors fitted with automatic door releases should be linked to an alarm and detection system which complies with the guidance in Firecode: HTM 82 – 'Alarm and detection systems';

c. all automatic door releases in the premises should be triggered by any of the following:

(i) the actuation of **any** automatic fire detector;

(ii) the actuation of any manual fire alarm call point;

(iii) any fault in the fire warning system;

(iv) any loss of power to the fire warning system.

d. automatic door releases should be provided with a ready means of manual operation from a position at the door;

e. each door fitted with an automatic door release should be closed at a pre-determined time each night and remain closed throughout the sleeping hours. Or, if for reasons of management this is impracticable, it should be the specific responsibility of a competent member of staff to operate the release mechanism at least once a week to ensure:

(i) that the mechanism is working effectively; and

(ii) the doors close effectively onto their frames.

Sub-division of roof and ceiling voids

7.76 Concealed spaces within the building permit the rapid spread of fire and smoke. It is possible for fire and smoke to be transferred to areas remote from the seat of the fire by way of uninterrupted concealed spaces. For this reason it is essential that fire-resisting barriers are provided to restrict the size of these concealed spaces.

Standard

7.77 30 minute fire-resisting barriers should be provided to sub-divide any concealed roof or ceiling void, so that the distance between barriers does not exceed 20 metres.

Openings in barriers

7.78 Openings in barriers should be limited to those for:

a. doors which have at least 30 minutes fire resistance;

b. pipes (see paragraph 7.68).

External envelope protection

7.79 The external wall or roof should provide sufficient fire resistance to prevent external fire spread from adjacent buildings or parts of the same building in different compartments. The importance of external envelope protection for existing buildings depends on the proximity of adjacent buildings, or compartments within the same building. In an isolated building, surrounded by parkland, for example, the external envelope protection may not be important. However, where the building is surrounded by similar buildings on a compact urban site, the external envelope protection becomes important.

Standard

Junction of walls and low-level roofs

7.80 Where a roof abuts an external wall the roof should provide a period of fire resistance of at least 60 minutes for a distance of 3 metres from the wall. See Diagram 6.

Junction of compartment and sub-compartment walls and external walls

7.81 When a compartment (or sub-compartment) wall meets an external wall, a one-metre-wide storey-height strip of external wall, which has a period of fire resistance at least equal to that of the compartment (or sub-compartment) wall, should be provided to prevent fire spread between compartments (or sub-compartments). See Diagram 7.

Unprotected area

7.82 The maximum percentage of unprotected area in an external wall should be determined from the graph in diagram 8.

7.83 Other methods of determining space separation are described in a Building Research Establishment report 'External fire spread: Building separation and boundary distances'.

Fire extinguishment

Objective

7.84 The design, management and operational policies of the hospital should ensure that fires can be extinguished effectively and quickly by the occupants or by the emergency services. Provision should be made for staff to attempt extinguishment of small fires, if it is still safe to do so, by the provision of first aid fire-fighting equipment. Provision should also be made for the fire brigade to have easy access to the building.

Manual fire-fighting equipment

7.85 Generally there should be two water extinguishers, of 9 litre capacity or the equivalent, for every 400 m^2 or part thereof. Extinguishers using CO_2 or other mediums should be provided as required. Fire blankets should be provided in all cooking and pantry areas. Guidance on the means of extinguishing various classes of fire is provided in Firecode: HTM 83 – 'Fire safety in healthcare premises: General fire precautions'.

Standard

7.86 Hand-held extinguishers, fire blankets and hose reels should be provided as necessary.

7.87 Portable extinguishers should comply with BS5423 and be inspected and maintained in accordance with BS5306:Part 3.

Diagram 6 Fire resistance at junction of external walls and low level roofs

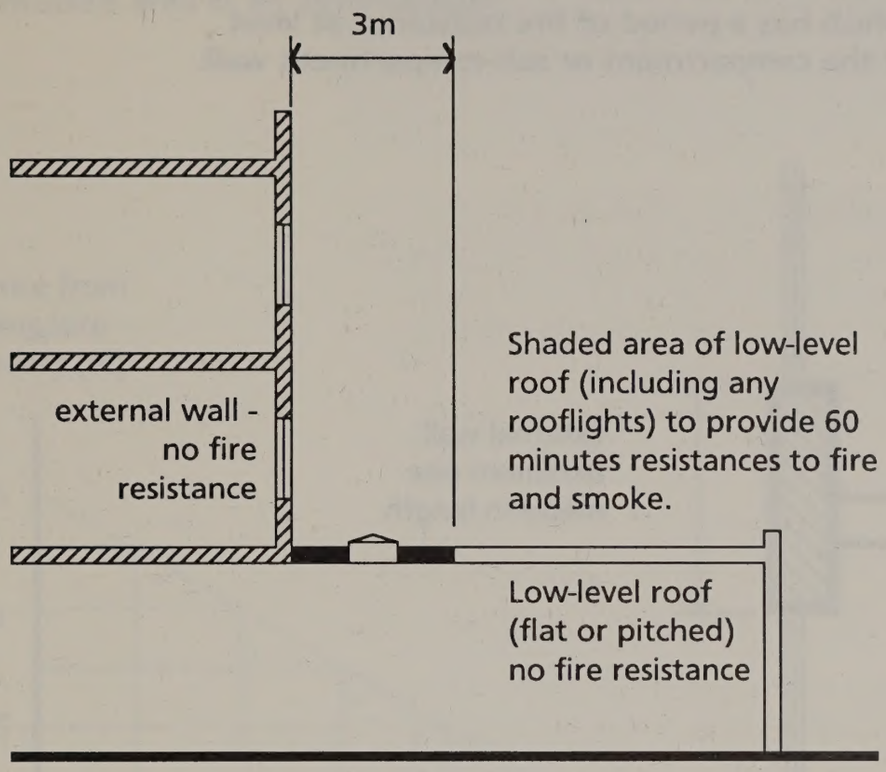
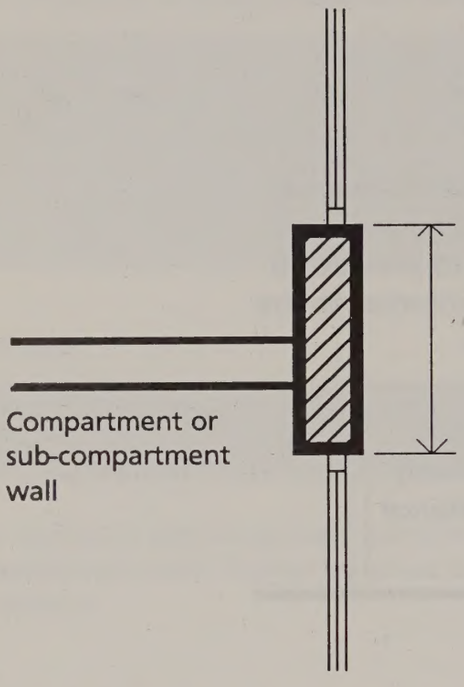

3m
Shaded area of low-level roof (including any rooflights) to provide 60 minutes resistances to fire and smoke.
external wall - no fire resistance
Low-level roof (flat or pitched) no fire resistance

Diagram 7 Junctions of compartment walls and external walls

Hatched area indicates a one metre wide storey height strip of external wall, which has a period of fire resistance at least equal to that of the compartment or sub-compartment wall.



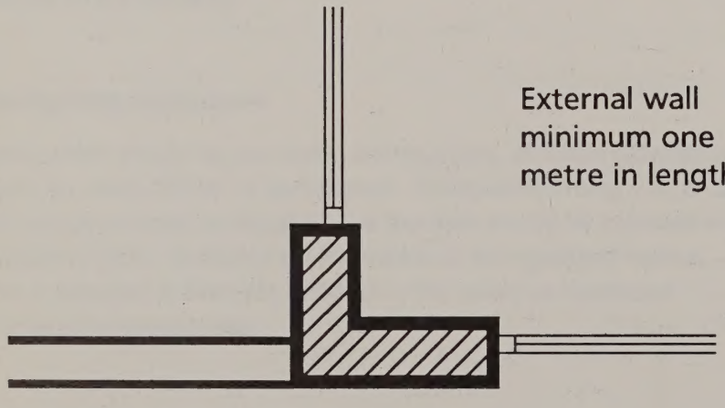
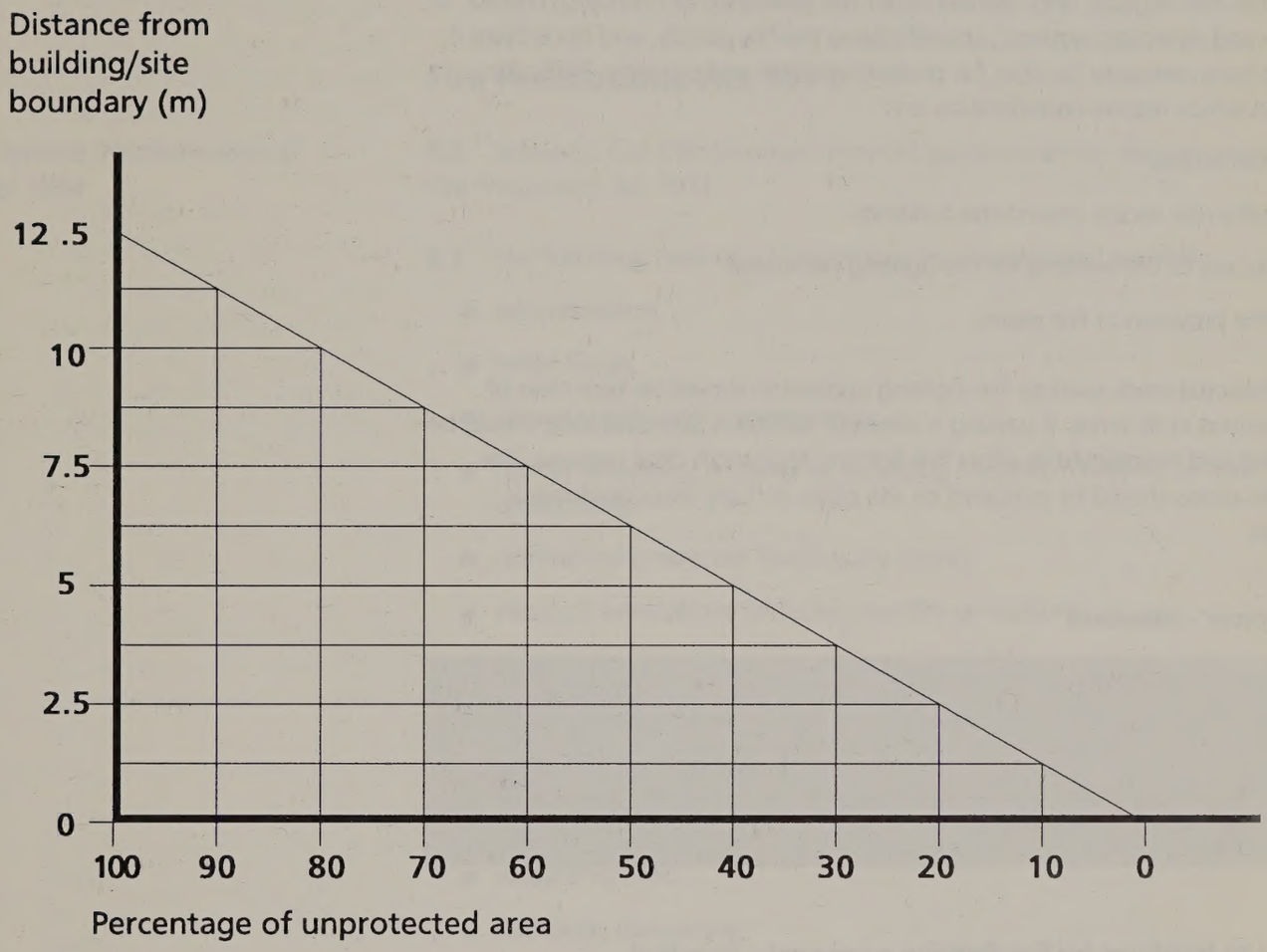


Diagram 8 Unprotected area

Method to determine the amount of unprotected area in an external wall.



7.88 Hose reel installations should conform to the relevant section of BS5306:Part 1.

Halons

7.89 New halon first aid extinguishers should not be provided in hospitals. Further guidance is provided in Firecode: HTM 83 – 'Fire safety in healthcare premises: General fire precautions'.

Access and facilities for the fire brigade

7.90 The fire brigade, once alerted under the provisions of Firecode: HTM 82 – 'Alarm and detection systems', should attend the fire quickly, and once there it should have adequate facilities for protection of life and property. Particular matters which require consideration are:

a. site access;

b. vehicular access around the buildings;

c. access to the building for fire-fighting personnel;

d. the provision of fire mains.

7.91 Hospital roads used by fire-fighting appliances should be kept clear of obstructions at all times. If parking is allowed, sufficient safe-clearance should be provided and maintained to allow fire-fighting appliances clear passage. Fire brigade access should be indicated on site plans and any associated mimic displays.

Site access – Standard

7.92 Adequate site access should be provided for fire-fighting appliances. Points of access should be agreed with the building control authority.

7.93 There should be access for brigade appliances to within 45 metres of 25 per cent of the building perimeter.

Access to buildings for fire-fighting personnel – Standard

7.94 Access points into the building for fire-fighting personnel should be provided at suitable locations around the building. A minimum of one staircase, which can be entered at ground level from a suitable access for brigade appliances and which should be suitable for use by fire-fighting personnel should be provided.

8.0 Fire safety in areas to which patients do not have access

General principles

Application

8.1 The guidance in this section is for those areas of the hospital to which patients do not have access, termed "non-patient areas".

Fire Precautions Act 1971

Fire Services (Northern Ireland) Order 1984

8.2 Section 3.0 of this document provides guidance on the requirements of the Fire Precautions Act 1971.

8.3 The following parts of a hospital may form designated premises:

- administration;
- boiler house;
- central sterile supply departments;
- central processing kitchens for supplying hospitals (cook/freeze meal production);
- commercial enterprises (particularly shops);
- electrical sub-stations (including standby generators);
- hospital and ambulance maintenance workshops;
- hospital sterilizing and disinfecting units;
- laundries (including their boiler houses);
- manufacturing pharmaceutical departments;
- medical records;
- pathology laboratories;
- processing areas of medical photographic departments;
- radiological departments (recovery units);
- radiotherapy shielding workshops (manufacturing);
- refuse collection/incineration;
- renal units (maintenance and refurbishment);
- telephone exchange;
- theatre sterile supply units;
- workshops in psychiatric and other hospitals (industrial therapy).

Fire certificates

8.4 Specific guidance on the procedure for applying for fire certificates is provided in Firecode: 'Policy and principles' and HTM 83 – 'Fire safety in healthcare premises: General fire precautions'.

Commercial enterprises

8.5 Commercial enterprises, mainly shops, are accessible to patients. However they are excluded from treatment here as Firecode: FPN 5 – 'Commercial enterprises on hospital premises', deals with their specific requirements for fire safety in detail. Its guidance should be followed when any commercial enterprises are provided.

Not Scotland. The Building Standards (Scotland) Regulations 1990. Technical Standards apply.

Residential premises

8.6 Staff residences, nurses homes and similar accommodation, should comply with the guidance on fire safety in Department of the Environment Circular 12/92 'Houses in multiple occupation: Guidance to local housing authorities on standards of fitness under section 352 of the Housing Act 1985'.

Article 46 of the Housing Northern Ireland) Order 1981.
Guide to Means of Escape and Related Safety Measures in Existing Houses in Multiple Occupation in Scotland (1988).

Licensed premises

8.7 Such premises are those which require licensing by the local authority, under one of the following Acts of Parliament;

a. the Licensing Act 1964;

b. the Cinemas Act 1985;

c. the Local Government Miscellaneous Provisions Act 1976.

They should comply with the guidance in 'Guide to fire precautions in existing places of entertainment and like premises', issued by the Home Office and obtainable from HMSO.

The Licensing (Northern Ireland) Order 1990 (a)
Cinemas (Northern Ireland) Order 1990 (b)
Local Government (Miscellaneous Provisions) (Northern Ireland) Order 1985 (c)

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56 Partitions, 1989.
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58 Internal doorsets, 1989.
59 Ironmongery, 1989.
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71 to 80 –

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81 Firecode: fire precautions in new hospitals, 1987.
81 Supp 1, 1993.
82 Firecode: alarm and detection systems, 1989.
83 Fire safety in healthcare premises: general fire precautions, 1994.
86 Firecode: fire risk assessment in hospitals, 1994.
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